Name_____ Date_____

Bridges Unit Study Guide

Test on:_____

Part 1: Vocabulary and Terms

Compression: _____

Tension: _____

Shear Force: _____

Torsion: _____

Buckling: _____

_____

Snapping: _____

_____

Deck: _____

Beam: _____

Pier: _____

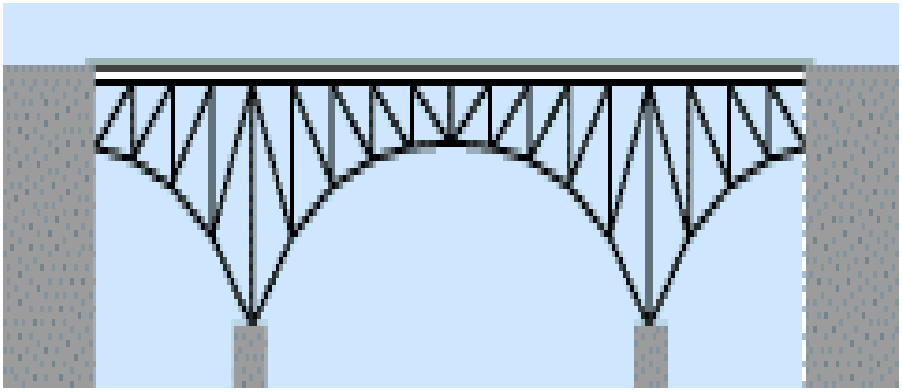
Abutments: _____

_____

Part 2: Bridge Diagram

Label the diagram below using the following terms:

Deck, Beam, Pier, Abutments



Part 3: Comparing and Contrasting

Fill in the tables for each bridge type.

Beam Bridges

Advantages	Disadvantages

Truss Bridges

Advantages	Disadvantages

Suspension Bridges

Advantages	Disadvantages

Arch Bridges

Advantages	Disadvantages

Cable Stay Bridges

Advantages	Disadvantages

Part 4: Open Ended

Answer the questions below using COMPLETE SENTENCES.

1. What are 3 reasons that bridges fail?

   _____
   _____
   _____
   _____

2. Who were the first great bridge builders? What materials were used to make the first bridges?

   _____
   _____

3. What type of engineers is responsible for bridge design? What materials do we use today to construct bridges?

   _____

4. Describe the "equal and opposite" reaction found in arch bridges between force and support.

   _____
   _____
   _____
   _____

Draw in line of best fit/trend line and write an analysis. What are the graphs showing? Which graph do you think has accurate data (2 are fictitious).